

CLAIMS:

What is claimed is:

1. An auction method, comprising:

(a) identifying at least one lot to be auctioned, having a plurality of units and

5 associated auction parameters;

(b) transmitting a remaining quantity of units within the lot over a network from a central server to a plurality of remote locations;

(c) receiving bid identifications for remaining units within the lot at the contemporaneous offering price from the plurality of remote locations over the network; and

10 (d) decrementing the offering price over time;

wherein remaining quantity information and bid identification information are communicated between the central server and a plurality of local servers, each local server communicating with at least one respective remote location, each local server altering a format of information communicated between a remote location and the central server.

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2. The auction method according to claim 1, wherein said local server comprises a rule database, and requires that bid identifications transmitted to said central server conform to rules in said rule database.

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3. The auction method according to claim 1, wherein information communicated between the central server and remote server is compressed.

4. The auction method according to claim 1, wherein information is contained in a data packet comprising quantity remaining information for a plurality of lots.

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5. The auction method according to claim 1, wherein the local server and the central server communicate information in packets through a packet switched network.

6. An auction method, comprising:

30 (a) identifying at least one lot to be auctioned, having a plurality of units within the lot and associated auction parameters;

(b) transmitting a remaining quantity of units within the lot from a central server to a plurality of remote locations;

(c) receiving bid identifications for remaining units within the lot at the contemporaneous offering price from the plurality of remote locations; and

5 (d) decrementing the offering price over time, wherein said decrementing is adaptive to a pattern of bid identifications received.

7. The method according to claim 6, wherein the auction extends over a predetermined duration.

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8. An auction method, comprising:

(a) identifying at least one lot to be auctioned, having a plurality of units within the lot and associated auction parameters;

15 (b) transmitting a remaining quantity of units within the lot from a central server to a plurality of remote locations;

(c) receiving bid identifications for remaining units within the lot at the contemporaneous offering price from the plurality of remote locations;

(d) decrementing the offering price over time; and

(e) storing a bid activity pattern in a database.

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9. The auction method according to claim 8, wherein the stored bid pattern activity is analyzed to determine an optimal set of auction parameters for a subsequent auction of a similar lot.

25 10. The auction method according to claim 9, wherein the price is decremented over time in a pattern adaptive to a bid activity pattern.

11. The auction method according to claim 10, wherein the auction parameters define an auction starting price and parameters of an adaptive decrement algorithm.

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12. The auction method according to claim 10, wherein the auction is conducted according to a predetermined schedule.

13. The auction method according to claim 8, wherein the central server and the local  
5 server communicate using Internet Protocol packets, and the local server and the remote location communicate using Internet Protocol sockets, the local server translating a format of information communicated between the central server and the remote location.

14. A method for conducting an auction, comprising the steps of:  
10 identifying a plural quantity of subject for auction;  
specifying a temporal parameter for the auction, selected from the group consisting of starting time, ending time, time dilation rule, auction cessation rule, and time-price relationship;  
providing a seller yield management system to define a set of supply parameters,  
including non-zero reserve and available quantity of subject;  
15 receiving buyer demand-utility function from a plurality of prospective buyers, each buyer demand-utility function defining the respective buyer's bid;  
over a period of time, generally relaxing a limiting restriction on the subject, and  
awarding a quantity of subject to a buyer corresponding to a demand-utility function of the buyer, which maximizes a seller utility; and  
20 ending the auction upon the earlier of an expiration of the auction, exhaustion of available quantity, or a surplus of the reserve over all prospective buyer's bids.

15. The method according to claim 14, wherein the subject of the auction represents an airline ticket.

16. The method according to claim 14, wherein the specified temporal parameter comprises a starting time, and a declining price over time rule.

17. The method according to claim 14, wherein a buyer demand-utility function  
30 comprises a maximum bid price based on quantity of subject remaining.

18. The method according to claim 14, wherein a buyer demand-utility function comprises a non-uniform maximum bid price per incremental unit of subject available and a minimum quantity desired for purchase.

5 19. The method according to claim 14, wherein a buyer demand-utility function is a function of subject quantity remaining.

20. The method according to claim 14, wherein the yield management system adaptively defines a quantity of subject for auction and a reserve price to optimize overall profits  
10 to seller based on time of auction, an inventory remaining prior to auction, and anticipated market conditions defining demand for the subject.

21. A method for conducting a transaction, comprising the steps of:  
identifying a subject;  
15 specifying a set of rules relating to a transaction involving the subject;  
implementing the set of rules of transaction proximate to a client for ensuring compliance with each of said rules;  
efficiently communicating transaction information from the client to a server complying with said rules; and  
20 receiving, at said server, transaction information from a client.

22. The method according to claim 21, wherein the rules provide for temporal variations in permissible transaction parameters.

25 23. The method according to claim 21, wherein the rules define an auction.

24. The method according to claim 21, wherein the rules define a descending price auction for multiple subjects.

30 25. The method according to claim 21, wherein the subject is a travel ticket.

26. The method according to claim 25, wherein the subject is a round trip airline ticket, wherein the rules implement stopover restrictions.

5 27. The method according to claim 21, wherein the rules prevent inconsistent itineraries.

28. The method according to claim 21, wherein the transaction information is transmitted from the client to the server as compressed information in an information packet.

10 29. The method according to claim 21, wherein the client and server communicate through the Internet.

15 30. The method according to claim 21, further comprising the step of transmitting information from the server to the client relating to the subject, as a parameter for implementation of the rules.

31. The method according to claim 21, further comprising the step of altering a number of available subjects for transaction over time.

20 32. The method according to claim 21, wherein the rules comprise a starting time, and a declining price over time.

25 33. The method according to claim 21, wherein the transaction information comprises a buyer demand-utility function.

34. The method according to claim 33, wherein a buyer demand-utility function comprises a non-uniform maximum bid price per incremental unit of subject available and a minimum quantity desired for purchase.

30 35. The method according to claim 25, wherein the rules implement a yield management system.

36. The method according to claim 25, wherein the server transmits parameters to the client for implementation of a yield management system.

- 5           37. The method according to claim 21, wherein the server identifies a quantity of subject available for transaction and a minimum price of transaction using an airline ticket yield management system to optimize overall profits to seller based on chronology, an inventory of subject remaining, and anticipated market conditions defining demand for the subject.